

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 to 54 (Cancelled).

55 89. (Previously Presented) An end cap for a filter device comprising:
a channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap, a portion of the channel adjacent to the interior chamber defining a fluid flow path in a first direction; and
at least one member extending from and located within the interior chamber of the end cap defining, for a fluid exiting the channel and flowing into the interior chamber of the end cap, a fluid flow path in a second direction different from the first direction.

56 90. (Currently Amended) The end cap of claim 55 89, wherein the filter device is a dialyzer.

57 91. (Currently Amended) The end cap of claim 56 90, wherein the end cap is attachable to a casing of the dialyzer.

58 92. (Currently Amended) The end cap of claim 55 89, wherein the channel is a blood inlet channel.

59 93. (Currently Amended) The end cap of claim 56 90, wherein the first direction is a direction that is non-radial relative to a direction defined by a hollow fiber bundle positionable in an interior chamber of the dialyzer.

60 94. (Currently Amended) The end cap of claim 59 93, wherein the first direction is a direction that is axial relative to the direction defined by a hollow fiber bundle positionable in an interior chamber of the dialyzer.

61 95. (Currently Amended) The end cap of claim 56 90, wherein the second direction is a direction that is radial relative to a direction defined by a hollow fiber bundle positionable in an interior chamber of the dialyzer.

62 96. (Currently Amended) The end cap of claim 55 89, wherein the at least one member is arranged circumferentially around the channel.

63 97. (Currently Amended) The end cap of claim 55 89, wherein the at least one member extends towards a perimeter of the interior chamber of the end cap.

64 98. (Currently Amended) The end cap of claim 55 89, wherein the at least one member is arranged such that the second direction of the fluid flow path defines an essentially radially symmetrical pattern.

65 99. (Currently Amended) The end cap of claim 55 89, wherein the at least one member is integrally formed with the end cap.

66 100. (Currently Amended) The end cap of claim 55 89, wherein the at least one member is curved.

67 101. (Currently Amended) The end cap of claim 55 89, wherein the end cap includes at least two members, respective portions of the members being spaced equidistantly relative to each other.

68 102. (Currently Amended) The end cap of claim 67 101, wherein the distance between respective portions of adjacent members decreases in the second direction of flow.

69 103. (Previously Presented) A filter device comprising:
a casing for housing a filter element;
an end cap attachable to the casing, the end cap including a channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap, a portion of the channel adjacent to the interior chamber defining a fluid flow path in a first direction, and at least one member extending from and

located within the interior chamber of the end cap defining, for a fluid exiting the channel and flowing into the interior chamber of the end cap, a fluid flow path in a second direction different from the first direction.

70 ~~404~~. (Currently Amended) The filter device of claim 69 ~~403~~, wherein the filter device is a dialyzer.

71 ~~405~~. (Currently Amended) The filter device of claim 69 ~~403~~, wherein the channel is a blood inlet channel.

72 ~~406~~. (Currently Amended) The filter device of claim 70 ~~404~~, wherein the filter element is a hollow fiber bundle.

73 ~~407~~. (Currently Amended) The filter device of claim 72 ~~406~~, wherein the first direction is a direction that is non-radial relative to a direction defined by the hollow fiber bundle when the hollow fiber bundle is located in an interior chamber of the dialyzer.

74 ~~408~~. (Currently Amended) The filter device of claim 72 ~~406~~, wherein the first direction is a direction that is axial relative to the direction defined by the hollow fiber bundle when the hollow fiber bundle is located in an interior chamber of the dialyzer.

75 ~~409~~. (Currently Amended) The filter device of claim 72 ~~406~~, wherein the second direction is a direction that is radial relative to a direction defined by the hollow fiber bundle when the hollow fiber bundle is located in an interior chamber of the dialyzer.

76 ~~410~~. (Currently Amended) The filter device of claim 69 ~~403~~, wherein the at least one member is arranged circumferentially around the channel.

77 ~~411~~. (Currently Amended) The filter device of claim 69 ~~403~~, wherein the at least one member extends towards a perimeter of the interior chamber of the end cap.

78 442. (Currently Amended) The filter device of claim 69 403, wherein the at least one member is arranged such that the second direction of the fluid flow path defines an essentially radially symmetrical pattern.

79 443. (Currently Amended) The filter device of claim 69 403, wherein the at least one member is integrally formed with the end cap.

80 444. (Currently Amended) The filter device of claim 69 403, wherein the at least one member is curved.

81 445. (Currently Amended) The filter device of claim 69 403, wherein the end cap includes at least two members, respective portions of the members being spaced equidistantly relative to each other.

82 446. (Currently Amended) The filter device of claim 81 445, wherein the distance between respective portions of adjacent members decreases in the second direction of flow.

83 447. (Previously Presented) An end cap for a filter device comprising:
a channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap; and

at least one member extending from and located within the interior chamber of the end cap, the at least one member configured to impart a circular motion to fluid exiting the channel and flowing into the interior chamber of the end cap.

84 448. (Currently Amended) The end cap of claim 83 447, wherein the filter device is a dialyzer.

85 449. (Currently Amended) The end cap of claim 84 448, wherein the end cap is attachable to a casing of the dialyzer.

86 420. (Currently Amended) The end cap of claim 83 447, wherein the channel is a blood inlet channel.

87 421. (Currently Amended) The end cap of claim 83 417, wherein a portion of the channel adjacent to the interior chamber defines a fluid flow path in a first direction.

88 422. (Currently Amended) The end cap of claim 84 418, wherein the first direction is a direction that is non-radial relative to a direction defined by a hollow fiber bundle positionable in an interior chamber of the dialyzer.

89 423. (Currently Amended) The end cap of claim 84 418, wherein the first direction is a direction that is axial relative to a direction defined by a hollow fiber bundle positionable in an interior chamber of the dialyzer.

90 424. (Currently Amended) The end cap of claim 83 417, wherein the at least one member is arranged circumferentially around the channel.

91 425. (Currently Amended) The end cap of claim 83 417, wherein the at least one member extends towards a perimeter of the interior chamber of the end cap.

92 426. (Currently Amended) The end cap of claim 83 417, wherein the at least one member is arranged such that the second direction of the fluid flow path defines an essentially radially symmetrical pattern.

93 427. (Currently Amended) The end cap of claim 83 417, wherein the at least one member is integrally formed with the end cap.

94 428. (Currently Amended) The end cap of claim 83 417, wherein the at least one member is curved.

95 429. (Currently Amended) The end cap of claim 83 417, wherein the end cap includes at least two members, respective portions of the members being spaced equidistantly relative to each other.

96 430. (Currently Amended) The end cap of claim 95 429, wherein the distance between respective portions of adjacent members decreases in the second direction of flow.

97 434. (Previously Presented) A filter device comprising:
a casing for housing a filter element;
an end cap attachable to the casing, the end cap including a channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap, the channel defining a fluid flow path in a first direction, and at least one member extending from and located within the interior chamber of the end cap, the at least one member configured to impart a circular motion to fluid exiting the channel and flowing into the interior chamber of the end cap.

98 432. (Currently Amended) The filter device of claim 97 434, wherein the filter device is a dialyzer.

99 433. (Currently Amended) The filter device of claim 97 434, wherein the channel is an inlet channel.

100 434. (Currently Amended) The filter device of claim 97 434, wherein the filter element is a hollow fiber bundle.

101 435. (Currently Amended) The filter device of claim 97 434, wherein a portion of the channel adjacent to the interior chamber defines a fluid flow path in a first direction.

102 436. (Currently Amended) The filter device of claim 101 435, wherein the first direction is a direction that is non-radial relative to a direction defined by a hollow fiber bundle positionable in an interior chamber of the dialyzer.

103 437. (Currently Amended) The filter device of claim 98 432, wherein the first direction is a direction that is axial relative to a direction defined by the hollow fiber bundle when the hollow fiber bundle is located in an interior chamber of the dialyzer.

104 ~~138~~. (Currently Amended) The filter device of claim 97 ~~134~~, wherein the at least one member is arranged circumferentially around the channel.

105 ~~139~~. (Currently Amended) The filter device of claim 97 ~~134~~, wherein the at least one member extends towards a perimeter of the interior chamber of the end cap.

106 ~~140~~. (Currently Amended) The filter device of claim 97 ~~134~~, wherein the at least one member is integrally formed with the end cap.

107 ~~141~~. (Currently Amended) The filter device of claim 97 ~~134~~, wherein the at least one member is curved.

108 ~~142~~. (Currently Amended) The filter device of claim 97 ~~134~~, wherein the end cap includes at least two members, respective portions of the members being spaced equidistantly relative to each other.

109 ~~143~~. (Currently Amended) The filter device of claim 108 ~~142~~, wherein the distance between respective portions of adjacent members decreases in the second direction of flow.

110 ~~144~~. (Previously Presented) A hemodialyzer device comprising:
a casing forming a housing, the casing having a blood outlet channel;
a hollow fiber bundle stored within the casing;
an end cap attachable to the casing, the end cap including a blood inlet channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap, the channel defining a fluid flow path in a first direction, and a plurality of curved members extending from and located within the interior chamber of the end cap, the at least one member defining, for a fluid exiting the channel and flowing into the interior chamber of the end cap, a fluid flow path in a second direction different from the first direction.

111 ~~145~~. (Currently Amended) The hemodialyzer device of claim 110 ~~144~~, wherein a portion of the channel adjacent to the interior chamber defines a fluid flow path in a first direction.

112 ~~146~~. (Currently Amended) The hemodialyzer device of claim 111 ~~145~~, wherein the first direction is a direction that is non-radial relative to the casing.

113 ~~147~~. (Currently Amended) The hemodialyzer device of claim 112 ~~146~~, wherein the first direction is a direction that is axial relative to the casing.

114 ~~148~~. (Currently Amended) The hemodialyzer device of claim 110 ~~144~~, wherein the second direction is a direction that is radial relative to the casing.

115 ~~149~~. (Currently Amended) The hemodialyzer device of claim 110 ~~144~~, wherein the plurality of members are arranged circumferentially around the channel.

116 ~~150~~. (Currently Amended) The hemodialyzer device of claim 110 ~~144~~, wherein the plurality of members extend towards a perimeter of the interior chamber of the end cap.

117 ~~151~~. (Currently Amended) The hemodialyzer device of claim 110 ~~144~~, wherein the plurality of members are arranged such that the second direction of the fluid flow path defines an essentially radially symmetrical pattern.

118 ~~152~~. (Currently Amended) The hemodialyzer device of claim 110 ~~144~~, wherein the plurality of members are integrally formed with the end cap.

119 ~~153~~. (Currently Amended) The hemodialyzer device of claim 110 ~~144~~, wherein respective portions of each one of the plurality of members are spaced equidistantly relative to each other.

120 ~~154~~. (Currently Amended) The hemodialyzer device of claim 119 ~~153~~, wherein the distance between respective portions of adjacent members decreases in the second direction of flow.

121 455. (Previously Presented) A method for filtering a fluid, comprising the steps of:

passing the fluid through a filter device, the filter device including a casing for housing a filter element and an end cap attachable to the casing, the end cap including a channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap, a portion of the channel adjacent to the interior chamber defining a fluid flow path in a first direction, and at least one member extending from and located within the interior chamber of the end cap defining, for a fluid exiting the channel and flowing into the interior chamber of the end cap, a fluid flow path in a second direction different from the first direction.

122 456. (Currently Amended) The method of claim 121 455, wherein the step of passing the fluid through the filter device involves passing blood through the filter device.

123 457. (Currently Amended) The method of claim 122 456, wherein the step of passing blood through the filter device involves passing blood through a dialyzer.

124 458. (Previously Presented) A method for filtering a fluid, comprising the steps of:

passing the fluid through a filter device, the filter device including a casing for housing a filter element and an end cap attachable to the casing, the end cap including a channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap, and at least one member within the interior chamber of the end cap, the at least one member configured to impart a circular motion to fluid exiting the channel and flowing into the interior chamber of the end cap.

125 459. (Currently Amended) The method of claim 124 458, wherein the step of passing the fluid through the filter device involves passing blood through the filter device.

126 460. (Currently Amended) The method of claim 125 459, wherein the step of passing blood through the filter device involves passing blood through a dialyzer.